

**I claim**

1. A method for fast booting a computer, the computer having a main memory, the method comprising the steps of:

providing a memory accessing unit having a memory module for storing

5 booting information for the computer;

reading the booting information and saving the booting information in the main memory when the computer is booting; and

executing the booting information stored in the main memory.

2. The method for fast booting a computer as in claim 1, wherein the  
10 computer is a desktop computer, notebook computer or server computer.

3. The method for fast booting a computer as in claim 1, wherein the main memory is at least a DRAM, DDRAM or RAMBUS.

4. The method for fast booting a computer as in claim 1, wherein the memory module is a non-volatile memory.

15 5. The method for fast booting a computer as in claim 4, wherein the non-volatile memory is a flash memory.

6. The method for fast booting a computer as in claim 1, wherein the memory module is a volatile memory and electrical power is supplied to the memory module when the computer is shut down.

20 7. The method for fast booting a computer as in claim 1, wherein the booting information comprises at least a booting file, registry file, execution

file or association file for an operating system.

8. The method for fast booting a computer as in claim 1, wherein the booting information is an operating system.

9. The method for fast booting a computer as in claim 7, wherein the  
5 operating system is MS Windows, IBM OS2 or LINUX.

10. The method for fast booting a computer as in claim 8, wherein the operating system is MS Windows, IBM OS2 or LINUX.

11. The method for fast booting a computer as in claim 1, wherein the booting information is a booting image file.

10 12. The method for fast booting a computer as in claim 11, wherein the booting image file is constructed by booting information stored in the main memory when the computer is turned on.

13. The method for fast booting a computer as in claim 1, further comprising a step, after the step of providing the memory accessing unit, of setting the  
15 memory accessing unit as a booting device of the computer through BIOS setting of the computer.

14. The method for fast booting a computer as in claim 1, wherein the memory accessing unit is connected to the main memory through an IDE interface, SCSI interface, RAID interface or PCI interface.

20 15. The method for fast booting a computer as in claim 1, wherein at least one CPU reads and executes the booting information when the computer is

booting.

16. The method for fast booting a computer as in claim 1, further comprising a step, after the step of executing the booting information, of:  
constructing a booting image file composed of booting information in the main  
5 memory; and

saving the booting image file in the memory accessing unit before shutting down the computer.

17. The method for fast booting a computer as in claim 1, further comprising a step, after the step of executing the booting information, of:

10 saving at least one booting file, registry file, execution file and association file for an operating system in the memory accessing unit before shutting down the computer.

18. An apparatus for fast booting a computer, comprising:

a memory accessing unit having a memory module for storing a booting  
15 information for the computer;

a main memory connected to the memory accessing unit for storing the booting information; and

at least one CPU connected to the memory accessing unit and the main memory, the CPU reading the booting information and saving the booting  
20 information to the main memory when the computer is booting.

19. The apparatus for fast booting a computer as in claim 18, wherein the

computer is a desktop computer, notebook computer or server computer.

20. The apparatus for fast booting a computer as in claim 18, further comprising a BIOS unit to set the memory accessing unit as a booting device of the computer.

5        21. The apparatus for fast booting a computer as in claim 18, wherein the memory accessing unit is connected to the main memory through a IDE interface, SCSI interface, RAID interface or PCI interface.

22. The apparatus for fast booting a computer as in claim 18, wherein the memory module is a non-volatile memory.

10       23. The apparatus for fast booting a computer as in claim 22, wherein the non-volatile memory is a flash memory.

24. The apparatus for fast booting a computer as in claim 18, wherein the memory module is a volatile memory and an electrical power is supplied to the memory module when the computer is shut down.

15       25. The apparatus for fast booting a computer as in claim 18, wherein the booting information comprises at least one booting file, registry file, execution file and association file for an operating system.

26. The apparatus for fast booting a computer as in claim 18, wherein the booting information is an operating system.

20       27. The apparatus for fast booting a computer as in claim 25, wherein the operating system is MS Windows, IBM OS2 or LINUX.

28. The apparatus for fast booting a computer as in claim 26, wherein the operating system is MS Windows, IBM OS2 or LINUX.

29. The apparatus for fast booting a computer as in claim 18, wherein the booting information is a booting image file.

5        30. The apparatus for fast booting a computer as in claim 29, wherein the booting image file is constructed by booting information stored in the main memory when the computer is turned on.

31. The apparatus for fast booting a computer as in claim 18, wherein the main memory is at least a DRAM, DDRAM or RAMBUS.

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